

# COLLEGE OF AGRICULTURE, HEALTH AND NATURAL RESOURCES

Indrajeet Chaubey, Ph.D., *Dean*

Kristen Govoni, Ph.D., *Associate Dean for Academic Programs*

In 1862, Congress passed the Morrill Land Grant Act providing grants of federal land to each state. Funds from the sale of these lands were used in establishing a college teaching agriculture and related subjects in each state. Subsequent federal acts have enlarged the responsibilities of these colleges. Today they continue to serve agriculture and society in many ways through a variety of educational programs. The University of Connecticut is the land-grant university in Connecticut. The College of Agriculture, Health and Natural Resources offers instruction at both undergraduate and graduate levels. Research and experimental work is carried on through the Storrs Agricultural Experiment Station. Educational and service programs are conducted throughout the State by the Cooperative Extension System. The College of Agriculture, Health and Natural Resources is supported by both federal and state appropriations and contributions from the private sector.

Agriculture has evolved to engage scientists concerned with food, people, and health in a manner that is economically viable and environmentally sustainable. The College of Agriculture, Health and Natural Resources maintains strong programs in fields such as agricultural biotechnology, allied health sciences, animal science, diagnostic and environmental sciences, health promotion, landscape architecture, medical laboratory sciences, nutritional biochemistry, pathobiology, pre-veterinary study, resource economics, and wildlife management.

The College has extensive facilities and operations to supplement and enhance instruction, learning experiences, and research. Laboratories, plants, animals, greenhouses and other related resources – both on and off campus – allow students to apply knowledge and skills in real-world, professional environments. The Agricultural Biotechnology complex, Center for Land Use Education and Research, Center for Environmental Health, Nayden Rehabilitation Clinic, Korey Stringer Institute and Athletic Training Learning Laboratory, Connecticut Institute of Water Resources, Connecticut State Climate Center, Food Marketing Policy Center, and the Wildlife Conservation Research Center are all integral components of the College of Agriculture, Health and Natural Resources.

The following departments offer undergraduate instruction in the College:

- Agricultural and Resource Economics
- Allied Health Sciences
- Animal Science
- Kinesiology
- Natural Resources and the Environment
- Nutritional Sciences
- Pathobiology and Veterinary Science
- Plant Science and Landscape Architecture

The Directory of Courses section of this Catalog describes the course offerings of these departments. Other courses are offered under the departmental listing Agriculture, Health and Natural Resources.

The four-year curriculum leads to the Bachelor of Science degree for all majors except Environmental Studies, which leads to a Bachelor of Arts degree.

## Undergraduate Majors

Students in most majors have a great deal of latitude in the choice of courses and may emphasize a range of options to meet personal objectives. Students may prepare for career opportunities in such diverse activities as research, production, distribution, business and industry, public service, health sciences, professional service, education, communications, product development, international development, environmental protection, and community resource development. In addition to formal course work students may participate in independent study projects, field internships, cooperative education, and practicums. Students may also prepare for formal education beyond the baccalaureate degree.

Advisors are available to discuss requirements, recommended courses, and career opportunities of the various majors with current and prospective students.

## Double Major Option

Students may elect to complete requirements for two major fields of study offered by the College of Agriculture, Health and Natural Resources. A student selecting this option must submit a Double Major Declaration indicating primary and secondary majors. This declaration must include a tentative plan of study and requires approval by the advisors and department heads for both respective major areas of study and the Associate Dean. The approved declaration will be submitted to the Degree Auditor. The student's final plan of study will include a double major attachment to verify that the requirements have been met for both the primary and secondary majors. The transcript will identify both majors.

**Primary Major.** Students must meet all requirements as listed under "Requirements for a Major" (36 credit group) and all individual major requirements as listed above.

**Secondary Major.** Students must meet all individual major requirements as listed above and successfully complete additional course work numbered 2000 or above not used as part of the 36 credit group for the primary major. This group of courses must:

1. total at least 24 credits
2. be numbered 2000 or above
3. be approved by student's advisor and department head
4. be taken at the University of Connecticut
5. include at least 15 credits of College of Agriculture, Health and Natural Resources courses
6. average at least a 2.0 Grade Point Average
7. not include more than six credits of Independent Study and Internship
8. not be taken on Pass/Fail
9. not include more than six credits of S/U coursework

## Allied Health Sciences Professional Majors

The Dietetics, Diagnostic Genetic Sciences and Medical Laboratory Sciences majors are professional majors in the Department of Allied Health Sciences. For program descriptions, please refer to the program

listed alphabetically under the College of Agriculture, Health and Natural Resources. General admission and program information is described in this section.

Dietetics, Diagnostic Genetic Sciences, and Medical Laboratory Sciences are competitive junior/senior programs with additional admission requirements, certifications, and health documentation as listed below. Please contact the department for questions and further information on requirements that may vary for each program.

The admission requirements and mandatory documentation and certifications listed below are *only* required of students admitted to the Dietetics, Diagnostic Genetic Sciences and Medical Laboratory Sciences majors. No other students need to complete this documentation unless required to do so as part of an optional internship course.

### **Additional Clinical Placement Requirements**

Students in each of the Professional Majors of Diagnostic Genetic Sciences, Dietetics and Medical Laboratory Sciences must complete all required clinical experiences. Failure to complete all required clinical experiences will prevent graduation from the Professional Major.

All clinical experiences must be completed at a Program approved facility. Each facility has its own requirements that must be met before accepting a student for clinical placement. The student is responsible for meeting the facility's requirements. The Programs are not responsible for securing clinical placements for students who are unable to a clinical facility's placement requirements.

Common clinical facility requirements include, but are not limited to, the following:

#### **Successfully Completing a Background Screening**

Background screenings may include checking state and federal criminal records and sex offender registries. If the background screening shows a criminal record or listing as a sex offender, the student may not be able to secure a clinical placement.

#### **Successfully Passing Drug Screenings**

Drug screenings may occur at one or more times during the program. If the drug screening test is positive, the student may not be able to secure a clinical placement or may be removed from a clinical placement. This includes, but is not limited to, prescribed medical marijuana or opiates.

#### **Demonstration of Immunization (i.e. Tuberculosis, Measles, Varicella, Hepatitis B and Influenza) and Physical Examination**

A record of previous immunization is not sufficient to fulfill these requirements. Students unable to demonstrate, through written documentation, being current with immunizations may not be able to secure a clinical placement. Additionally a physical examination is required. Titers and physical examination may be done through the student's personal physician or the University's student health service.

#### **Certification in First Aid and Cardiopulmonary Resuscitation (CPR for Health Care Providers) (for Dietetics and some DGS and MLS Students)**

Students must maintain certification throughout enrollment in clinical experiences. Students unable to demonstrate, through written documentation, being certified in CPR and first aid may not be able to secure a clinical placement.

#### **Clinical Education Certification**

The Department of Allied Health Sciences will provide annual mandatory educational sessions to students to be in compliance with both the

OSHA Bloodborne Pathogen Standards and are knowledgeable of the requirements for compliance with the Health Insurance Portability and Accountability Act (HIPAA). Students who fail to provide written documentation of meeting both of the above OSHA and HIPAA requirements will not be allowed in the clinical setting.

#### **Medicare Exclusion Waiver**

Students who fail to provide written documentation of the Medicare Exclusion Waiver will not be allowed in the clinical setting.

The student will be responsible for any and all expenses and fees associated with fulfilling the background screening, drug screening, immunization and physical examination, and certification in CPR and first aid requirements.

#### **Fees and Expenses**

Students can expect fees to approximate those of other University students. The professional majors and internship students have added expenses for texts, uniforms and/or clinical travel. Students on clinical placement or doing an internship as part of their major are responsible for all expenses associated with the clinical/internship. Students are responsible for their own transportation to the clinical agencies/internship sites. They should allow for transportation expenses, which could include parking fees, cost of gasoline and cost of air travel/bus/train where necessary. Students are required to pay full fees and tuition during off-campus clinical affiliations and internships. During periods spent full-time in the affiliated areas off-campus, if applicable it is the responsibility of the students to find living quarters and to provide their own maintenance.

#### **Insurance**

It is mandatory that students in the Department of Allied Health Sciences' Professional majors carry comprehensive health insurance, either privately or through the University. Additionally, all students in the professional majors or relevant internships are required to carry specific professional liability (malpractice) insurance under the blanket University policy. Students will automatically be billed for this on the University fee bill.

### **Pre-physical Therapy, Pre-medical, and Other Health Related Pre-professional Programs**

Students preparing for professional careers in physical therapy, human medicine, dentistry, physician's assistant and other post-baccalaureate health programs may major in Allied Health Sciences, Kinesiology, Nutritional Sciences, or Pathobiology, as well as many other science-based majors throughout the University. Pre-professional programs in the College of Agriculture, Health and Natural Resources are offered as structured options within majors, rather than as official, stand-alone majors. This allows students to consider multiple career goals without compromising their eligibility for admission into competitive professional programs. Physical Therapy at the University of Connecticut is offered at the graduate level. (Consult the Graduate Catalog for more information regarding admission requirements for the University of Connecticut's Doctorate in Physical Therapy Program).

#### **Pre-Veterinary Medicine**

Students aspiring to become veterinarians generally major in either Animal Science or Pathobiology at the University of Connecticut. Animal Science includes the study of animal genetics, physiology, nutrition, medicine, products, and behavior. Pathobiology is the study

of normal and abnormal biological processes in animals, including courses in anatomy, physiology, diseases, histology, virology, and microbiology. In both majors, the structured curriculum for pre-veterinary students includes courses required for veterinary college admission. Knowledgeable advisors, professional experience, networking opportunities, and – of course – students' success in rigorous course requirements have resulted in a great track record for UConn graduates being admitted to veterinary schools and colleges.

## Honors Programs

University honors programs are available to qualified students in the College. Please refer to the section of this *Catalog* designated "Honors Programs" for further information.

## Exemptions and Substitutions

Students requesting an exemption from any University and/or College requirement, or a substitution for a course or requirement, should consult their advisors. Such exemptions or substitutions must be approved by the Department Head and the Associate Dean of the College and may also require approval from the Provost's Office.

## Field Trips and Transportation Costs

Many courses require off-campus field trips. Students should budget money for participation.

## Graduate Programs

Most departments provide graduate programs for students interested in greater specialization beyond the baccalaureate. The study may lead to a Master of Science or Doctor of Philosophy degree. Students planning for a graduate program should secure a comprehensive background in the basic sciences.

## Majors

- Agriculture, Health and Natural Resources (BS) (<https://catalog.uconn.edu/undergraduate/agriculture-health-natural-resources/agriculture-health-natural-resources-bs/>)
- Allied Health Sciences (BS) (<https://catalog.uconn.edu/undergraduate/agriculture-health-natural-resources/allied-health-sciences-bs/>)
- Animal Science (BS) (<https://catalog.uconn.edu/undergraduate/agriculture-health-natural-resources/animal-science-bs/>)
- Diagnostic Genetic Sciences (BS) (<https://catalog.uconn.edu/undergraduate/agriculture-health-natural-resources/diagnostic-genetic-sciences-bs/>)
- Dietetics (BS) (<https://catalog.uconn.edu/undergraduate/agriculture-health-natural-resources/dietetics-bs/>)
- Economics of Sustainable Development and Management (BS) (<https://catalog.uconn.edu/undergraduate/agriculture-health-natural-resources/economics-sustainable-development-management-bs/>)
- Environmental and Natural Resource Economics (BS) (<https://catalog.uconn.edu/undergraduate/agriculture-health-natural-resources/environmental-natural-resource-economics-bs/>)
- Environmental Sciences (BS) CAHNR (<https://catalog.uconn.edu/undergraduate/agriculture-health-natural-resources/environmental-sciences-bs/>)
- Environmental Studies (BA) CAHNR (<https://catalog.uconn.edu/undergraduate/agriculture-health-natural-resources/environmental-studies-ba/>)

- Exercise Science (BS) (<https://catalog.uconn.edu/undergraduate/agriculture-health-natural-resources/exercise-science-bs/>)
- Individualized Major (<https://catalog.uconn.edu/undergraduate/agriculture-health-natural-resources/individualized-major/>)
- Landscape Architecture (BS) (<https://catalog.uconn.edu/undergraduate/agriculture-health-natural-resources/landscape-architecture-bs/>)
- Medical Laboratory Sciences (BS) (<https://catalog.uconn.edu/undergraduate/agriculture-health-natural-resources/medical-laboratory-sciences-bs/>)
- Natural Resources (BS) (<https://catalog.uconn.edu/undergraduate/agriculture-health-natural-resources/natural-resources-bs/>)
- Nutritional Sciences (BS) (<https://catalog.uconn.edu/undergraduate/agriculture-health-natural-resources/nutritional-sciences-bs/>)
- Pathobiology (BS) (<https://catalog.uconn.edu/undergraduate/agriculture-health-natural-resources/pathobiology-bs/>)
- Plant Science (BS) (<https://catalog.uconn.edu/undergraduate/agriculture-health-natural-resources/plant-science-bs/>)

## Admission Requirements

Students may enter the College of Agriculture, Health and Natural Resources directly upon admission to UConn as a first-year or transfer student. New students who select Allied Health Sciences will be admitted as Allied Health Sciences majors and advised by the Department of Allied Health Sciences. Professional majors in the Department of Allied Health Sciences (Dietetics, Diagnostic Genetic Sciences, and Medical Laboratory Sciences) are competitive junior/senior year programs with additional admission procedures and requirement as outlined below. Students planning to apply to the Exercise Science program should refer to specific information in the Exercise Science description.

See Admission to the University and New England Regional Student Program.

## Scholarships

Over \$600,000 in scholarships and awards are available to students in the College of Agriculture, Health and Natural Resources.

## Advisors Assigned by Major

Departmental Advisors are assigned to students upon entry into the College of Agriculture, Health and Natural Resources according to a student's major and area of special interest. Advisors assist students in the selection of appropriate courses and help them develop an individualized program of study that will meet educational and career goals. The office of the Associate Dean for Academic Programs and the Academic Advisory Center of the College of Agriculture, Health and Natural Resources also support students and advisors.

## Admission - Dietetics, Diagnostic Genetic Sciences, or Medical Laboratory Sciences

Admission for the Professional majors is competitive. The Professional majors in the Department of Allied Health Sciences are junior/senior programs. Students apply to their major(s) of choice in the spring of their sophomore year. To apply, students must have earned a minimum of 60 credits, by time of matriculation, completed all University Common Curriculum requirements, except the one W skill course within the major, and satisfied the prerequisite science courses of the major of application. Students are advised to complete all application procedures as early as

possible in their fourth semester, but no later than February 1 annually. Admission is for the fall semester.

### First-Year Student Admission

First-Year Students are not admitted directly into the professional majors. Students may elect to complete admission requirements and university Common Curriculum requirements as an Allied Health Sciences major or choose another first-year admit major at the university.

### Guaranteed Admission Policy

Although first-year students are not admitted directly into the professional majors, the Department of Allied Health Sciences has a Guaranteed Admission Offer. This offer provides first-year students with direct admission in the junior year to the professional major of their choice if the student fulfills the criteria described under each major below. The Guaranteed Admission Offer is made to provide students with a clear and supportive environment in which to complete admission prerequisites and achieve their academic goals in the Department of Allied Health Sciences.

In order to qualify for Guaranteed Admission to the Professional majors in Diagnostic Genetic Sciences, Dietetics, or Medical Laboratory Sciences a student must:

1. have entered the University as a first-year student
2. apply to the major within two years of their first-year student admission
3. complete three successive semesters of full time study of required course work at the University of Connecticut
4. earn an Overall Grade Point Average of a minimum of a 3.2 for Diagnostic Genetic Sciences or must earn an Overall Grade Point Average of a minimum of a 3.0 for Dietetics, or Medical Laboratory Sciences
5. meet all Admission Requirements and file a Department of Allied Health Sciences Application by the deadline

Students meeting all of these criteria are guaranteed admission to the major.

University of Connecticut students who do not meet the Guaranteed Admission Offer will be reviewed competitively on a space available basis. Transfer Applicants to the professional majors will be reviewed on a space available basis once matriculated University of Connecticut students have been reviewed and offers of admission have been confirmed.

### Transfer Admission

University transfer admission requires a minimum 2.7 GPA even though professional program admission requires a minimum 2.2 GPA. Transfer students must first be admissible to the University before an offer of admission can be extended by the Department of Allied Health Science. Transfer students may require an additional year to complete requirements depending on how their prior coursework transfers and course availability at time of registration. Students are encouraged to take prerequisites at the University of Connecticut to expedite admission to a professional program.

## Bachelor's Degree Requirements

Upon recommendation of the faculty the degree of Bachelor of Science or Bachelor of Arts is awarded by vote of the Board of Trustees to students who have met the following requirements:

1. earned a total of 120 degree credits
2. earned at least a 2.0 cumulative grade point average for the number of calculable credits for which they have been registered
3. earned at least a 2.0 cumulative grade point average for all courses included in the 36 credit numbered 2000 or above requirement for the major
4. met all the requirements of the University of Connecticut; the College of Agriculture, Health and Natural Resources; and their individual major as outlined below

### Common Curriculum Requirements

All students in the College of Agriculture, Health and Natural Resources must meet the University-wide Common Curriculum Requirements as described in the "Common Curriculum Requirements" section of this Catalog.

### Science and Mathematics Requirements

Students in the College of Agriculture, Health and Natural Resources must pass at least one laboratory course in Topic of Inquiry 6, and at least two Quantitative (Q) courses, including at least one course in Mathematics or Statistics. Ordinarily, these requirements will be met by completing University common curriculum courses and/or courses required by the Major. However, if a student receives a waiver from common curriculum courses (e.g. based on completion of a previous baccalaureate degree) he or she must still complete the science and quantitative courses, as listed above.

### CAHNR Agriculture, Health, and Environment Requirement

Students in the College of Agriculture, Health and Natural Resources must pass two courses (six credits) from the following list. Courses must come from two different subject areas.

Course	Title	Credits
AH 1030	Interdisciplinary Approach to Obesity Prevention	3
AH 2330	Italy's Mediterranean Food and Our Health	3
ANSC/NUSC 1645	The Science of Food	3
ARE 1110E	Population, Food, and the Environment	3
ARE 1150	Principles of Applied and Resource Economics	3
ARE 2250E	Energy Economics: Sustainable Transitions	3
ARE 2434E	Environmental and Resource Policy	3
ARE 2525	Sustainability Policy and Management	3
ARE 3305E	Economic Development, Environment, and Policy	3
ARE 3437E	Marine Fisheries Economics and Policy	3
ARE 3438E	Climate Economics	3
ARE 4438E	Valuing the Environment	3
ARE 4462E	Environmental and Resource Economics	3
KINS 2227	Exercise Prescription	3
LAND 3230WE	Sustainable Environmental Planning and Landscape Design	3
NRE 1000E	Environmental Science	3
NRE 1235E	Environmental Conservation	3
NRE 2146	Climatology	3
NRE 2215E	Introduction to Water Resources	3

NRE 2600E	Global Sustainable Natural Resources	3
NRE 3245E	Environmental Law	3
NUSC 1030	Interdisciplinary Approach to Obesity Prevention	3
NUSC 1165	Fundamentals of Nutrition	3
NUSC 1167	Food, Culture and Society	3
PATH 1100E	One Health: People, Animals, Plants, and the Environment	3
PLSC 1060E	The Great American Lawn: History, Culture, and Sustainability	3
PLSC 1125E	Insects, Food and Culture	3
PLSC 1150	Agricultural Technology and Society	3
PLSC 2100E	Environmental Sustainability of Food Production in Developed Countries	3
PLSC 2500E	Principles and Concepts of Agroecology	3

tenth week of the semester prior to graduation. Professional majors in the Department of Allied Health Sciences do not require a plan of study.

### Specific Course Requirements for Individual Majors

Students must complete specific courses for individual majors as outlined below. Many courses may be used to meet more than one requirement.

### 36 Credit Requirement for All Majors

Students in all majors of the College of Agriculture, Health and Natural Resources must successfully complete at least 36 credits of courses in or relating to their major. Courses for this 36-credit group may be taken from specific major requirements (as listed below for some majors), or may be selected according to a student's individual educational and career goals. This group of courses must:

1. be numbered 2000 or above
2. be approved by the student's advisor and department head
3. include at least 30 credits taken at the University of Connecticut
4. be taken in two or more departments
5. include at least 15 credits from departments in the College of Agriculture, Health and Natural Resources, which must be taken at the University of Connecticut
6. have a combined grade point average of at least 2.0
7. not include more than six credits (combined) of independent study, internship, or field studies (if included, these credits must be taken at the University of Connecticut)
8. not be taken on Pass/Fail
9. not include more than six credits of S/U coursework

### Residence Requirement

It is expected that advanced course work in the major will be completed at the University of Connecticut. However, students may be eligible to use up-to six credits from other institutions in the 36-credit group if approved by their advisor and department head. These credits must be identified as courses comparable to specific University of Connecticut courses and cannot include internships, special topics, or non-specific discipline credits. Transfer students must complete at least 30 credits of 2000-level or higher course work at the University of Connecticut, including at least 15 credits in College of Agriculture, Health and Natural Resources courses.

### Plan of Study

Students should work closely with their advisors to review requirements, recommended courses, and career goals. Each student should prepare a tentative plan of study, outlining all courses, with an academic advisor as early as possible, but in no case later than at the start of the junior year. A final plan of study, approved by the major advisor and the department head, must be filed with the Degree Auditor no later than the end of the